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A META-ANALYSIS OF INSTITUTIONAL THEORIES

by

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This paper assesses the implications that institutional theories have for resource management in organizations, and specifically for the resource management in non-profit organizations. A meta-analysis of research studies that apply institutional theories is conducted in this study. Various dimensions, not mentioned in the theories, are discovered and analyzed in light of the theories. Assessments are made as to whether or not the various aspects of theory are appropriately operationalized through the discovered dimensions. The general conclusion is that the theories are appropriately operationalized, but there are problems with the treatment of unit of analysis. Recommendations based on the analysis are given for subsequent research which may further clarify applications of institutional theories.

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A Meta-Analysis Of Institutional Theories

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ABSTRACT

This paper assesses the implications that institutional theories have for resource management in organizations, and specifically for the resource management in non-profit organizations. A meta-analysis of research studies that apply institutional theories is conducted in this study. Various dimensions, not mentioned in the theories, are discovered and analyzed in light of the theories. Assessments are made as to whether or not the various aspects of theory are appropriately operationalized through the discovered dimensions. The general conclusion is that the theories are appropriately operationalized, but there are problems with the treatment of unit of analysis. Recommendations based on the analysis are given for subsequent research which may further clarify applications of institutional theories.

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I. INTRODUCTION

A. BACKGROUND

Why can't the DOD be more efficient in its operations? There are volumes of economic theory that address the notion of efficiency in the non-profit sector, but DOD continues to be inefficient in terms of traditional economic and organizational theory (e.g., cost-benefit analysis, cost-effectiveness analysis, Cobb-Douglas production function). (Stiglitz, 1988)

The purpose of this thesis is to assess the implications that institutional theories have for resource management in organizations, and more specifically for resource management in non-profit organizations. This assessment is accomplished by analysis of research studies that applied institutional theories to real-world situations. The goal of this study is to further refine the use of institutional theories in the non-profit sector in order to provide an additional perspective for management in the DOD.

The idea for this research grew out of course work in financial management and control systems. While analyzing a control system used by Commander Patrol Wings Atlantic (COMPATWINGSLANT), it was discovered that traditional theories of evaluation and control (Thompson, 1967) did not

adequately explain problems associated with resource allocation and management decision processes in the COMPATWINGSLANT readiness system. Institutional theories were used to analyze the readiness system with interesting results. Institutional theories provided a different insight into the resource allocation and management decision problems in the readiness system.

B. DISCUSSION

The perspective of institutional theories is relatively new and is still evolving at the theoretical level. Briefly, institutional theories provide an alternate evaluation criteria for organizations that deal with difficult to define factors of production (inputs, transformation processes and outputs). The theories provide a rationale of how organizations come to be structured in light of their environment and factors of production.

The modern perspective of institutional theories has its roots in earlier theoretical developments of organization authority and legitimacy. Institutional theories were developed as an alternative to traditional theories (technical-rational) of evaluation and control.

Because of their emergent state, institutional theories are difficult to explain. March and Olsen characterized institutional theories as "...(having) a reasonable empirical base, but they are not characterized by powerful theoretical forms." (1984, p.734) There currently appears

to be no uniform statement of the theory in the literature. According to DiMaggio, "...(there is) so much diversity in outlook and analytic focus (of institutional theories) as to suggest what may seem, at a distance, to be a theory is in reality several theories (or, in some cases, approaches to theories) that are not on every point consistent with one another." (1988, p.17) The latter observations were found to be true while conducting the research for this paper. Therefore, the context of this paper will follow DiMaggio's assertion of many theories.

Institutional theories are appropriately applied when inputs and outputs of organizations are difficult to define and measure. Since input and output parameters are difficult to define, the organization has difficulty when faced with evaluation criteria from external entities. Organizations in this environment seek to maintain their existence by embodying aspects of accepted behavior into the organization. The organization, in order to survive, will change into a form that replicates those characteristics that the evaluating entity believes to be socially acceptable (e.g., schools adopt administrative requirements as demanded by their funding source). These socially acceptable characteristics are manifested as rational behavior. The presentation of rationality enables the organization to gain legitimacy from the evaluating entity because its behavior is seen as conforming to

accepted social behavior. The attainment of legitimacy by the organization is a necessary aspect of its survival dilemma.

Institutional theories provide an explanation of why the efficiency criteria[1] fails in the non-profit sector. Often the criteria is applied in non-profit organizations such as the DOD and results in negative evaluations of managers. The managers are then judged to be ineffective and inefficient even though the managers are "doing the right things" for their particular environment. The managers then become frustrated because their decision making processes have led them to negative evaluations. A better understanding of the principles of institutional theory may lead to better decision making and evaluation criteria on the part of managers in the non-profit sector.

C. SCOPE

This paper concentrates on institutional theories as evidenced in the current literature (post 1975) and its applications to real-world circumstances. Other theories, such as technical-rational are addressed only for illustrative purposes.

The thesis is focused as an assessment of institutional theories in the context of their application. Studies are

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[1] The efficiency criteria can be understood as part of the broader perspective of technical-rational theories of organizations. This criteria, as well as the broader perspective, will be dealt with later in the paper.

analyzed as to how well the theory is operationalized according to accepted research techniques.

D. METHODOLOGY

The primary analysis method used in this paper is meta-analytic procedures (Hunter, 1982; Rosenthal, 1984). The technique is to conduct a study across many other studies. An exhaustive literature search was conducted for studies that apply the institutional perspective in analysis of organizations.

A protocol for the analysis of the literature was developed enabling cross comparisons of the studies. The protocol established a common evaluation criteria across all the studies. The protocol consists of two sections.

The first section is a description of the unit of analysis. When conducting analysis in organizational research there are boundary problems that must be considered (Freeman, 1978). Space and time dimensions of organizations must be aligned in order to provide valid comparisons of the research variables.

The second section of the protocol is a description of the study. In this section, identification of the dependent and independent variables serve as the basis for analysis of the studies. The dependent variable is the element in the study that is being affected or changed by a set of factors, while the independent variable is the factor that acts to change the dependent variable.

E. ORGANIZATION

1. Description of Institutional Theories

Chapter two presents a broad overview of the evolution and development of institutional theories. Underlying sociological theories are outlined and traced to the current modern theories. Technical-rational theory is also explained in order to enhance the understanding of institutional theories. The modern theories are presented as a theory to understand the process of change in organizations that leads to the peculiarities of an organization that has been institutionalized.

2. Findings of the Research

Chapter three presents the findings of the research. The data collected from the studies is categorized according to the protocol. Various dimensions of the theories are identified and compared and the results of the process are reported. The dimensions of the theories are research methodology, unit of analysis, variables and relationship between unit of analysis and variables.

3. Analysis of the Research

Chapter four is an analysis of th research findings in the context of the following question: Do the research studies test the theory? That is, is the theory appropriately operationalized? The analysis in this section follows the same format as established in chapter

three. Trends are highlighted and observations are presented as to significant findings of the analysis.

4. Discussion

A summary discussion of the significant findings of the research as an assessment of institutional theories is presented. The significant areas are: research method, unit of analysis to include the structural and process dimension and structural and process families of dependent variables. Recommendations for further research are included.

II. DESCRIPTION OF INSTITUTIONAL THEORIES

A. INTRODUCTION

The discussion in this chapter begins with an outline of theories of organizations dating from the early twentieth century. Weber and Parsons provided fundamental ideas that have been embodied in the modern institutional theories. By following the evolution of their theories one can better understand the fundamental concepts underlying modern institutional theories.

The second section outlines the alternate theories of organizations. Because of the connotative nature of current institutional theories, an explanation of institutional theories is enhanced by describing a competing theory of organizations.

Finally, the modern institutional theories are presented as a "...strategy for modeling and explaining instances of organizational change." (DiMaggio, 1988, p.3) The theories are outlined according to three aspects of how organizations embedded in an institutional environment undergo change in order to adapt to the environment and enhance its survival prospects.

B. ORIGINS OF INSTITUTIONAL THEORIES

The early part of the twentieth century, with the advent of new complexities in the nature of organizations,

saw the inception of the institutional framework of organizations. Weber (1947), though not addressing institutional theories per se, was aware of the implications of this concept in the sociology of organizations. His notions of authority laid the ground work for the development of modern institutional theories.

Two core ideas of Weber's sociology of organizations were latter embodied in the modern literature of institutional theories: rational-legal authority and traditional authority (Figure 2.1). Parsons, writing in the introduction of his translation of Weber (1947), puts forth that these two concepts of authority are embedded in the sociology (human social behavior) of an organization. Rational-legal authority, according to Parsons, is "...universalistic in that it applies impartially to all persons meeting the logically formulated criteria of their (society's) definitions." (Weber, 1947, p.57) Societal definitions are beliefs that take on a rule-like (Meyer and Rowan, 1977 and Zucker, 1987a) status in society which are taken-for-granted (Zucker, 1983) by all members of society as unquestioned truth. These definitions can be legislated or mandated by a legitimate rational source. Assuming all members of society subscribe to logical behavior, the authority is not questioned by members of society because of its perceived rational source. An individual may be proclaimed as an authority by a legitimizing source, even

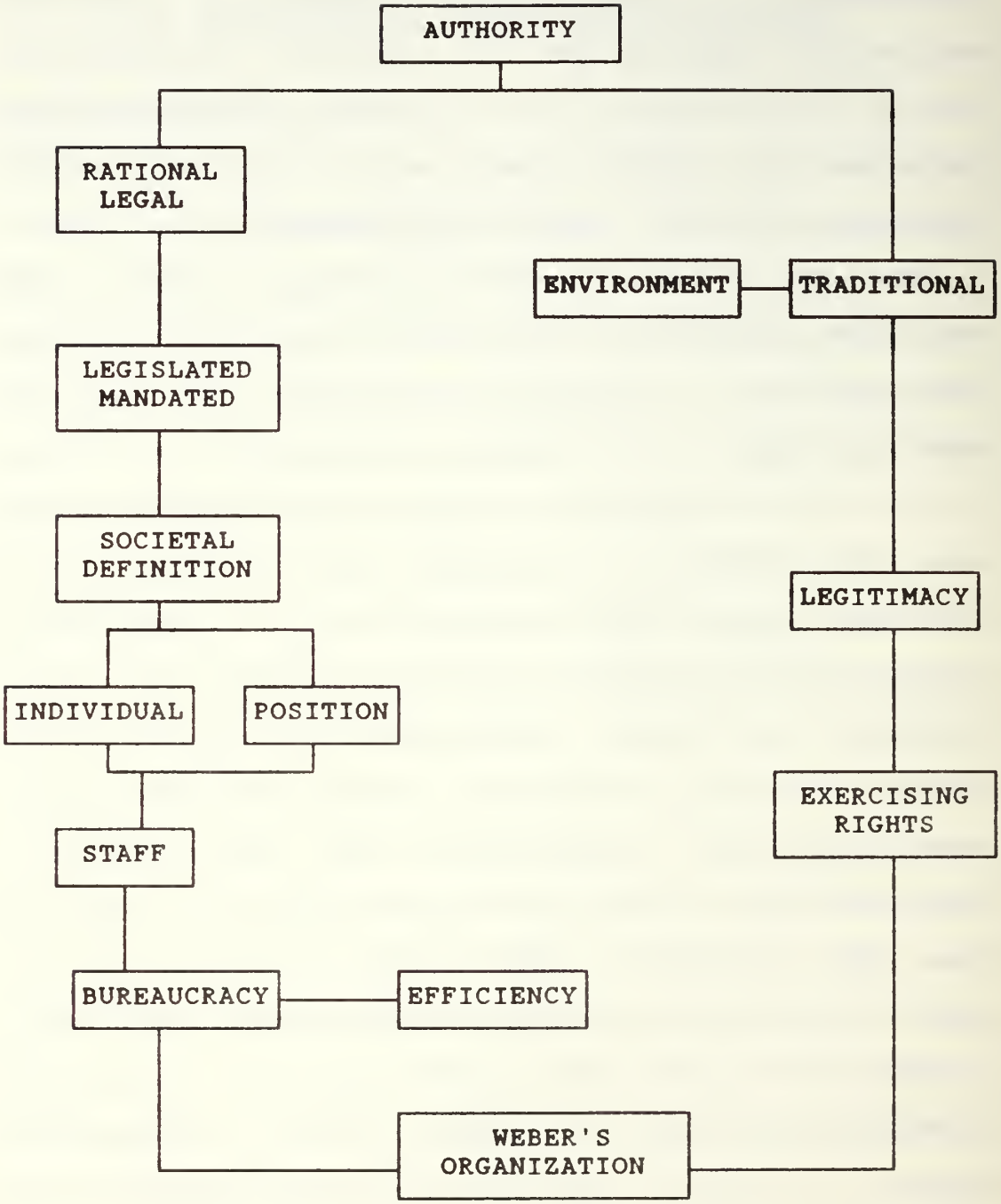

Figure 2.1. Weber's Organization

though the individual has no real basis of authority for the given situation (the individual may lack responsibility for the outcome). In the case of an individual holding a position of authority, the position, not the individual holding the position, possesses the authority by virtue of its societal definition (e.g., military rank).

Parsons (Weber, 1947) goes further and extends Weber's concept of individual and position rational-legal authority to group rational-legal authority. He formulates the concept of the organized administrative staff. Weber's context of authority is now possessed by a "staff" which is seen as a single faceless and nameless entity. Parsons, at this point, has evolved Weber's individual rational-legal authority to a stage where the authority generates its force from the impersonal nature of the group (Weber, 1947). The "staff" is a source of authority that no longer can be traced to an individual or single position. When individual and position rational-legal authority are embedded in the structure of an organized administrative staff, the organization has taken on the form of the "bureaucratic" structure (Parsons writing in Weber, 1947). Bureaucratic structures are the fundamental structure for organizations that are institutionalized.

Parsons makes a further observation which is the critical link to modern institutional theories in terms of an efficiency criteria. "Bureaucracy...is by far the most

efficient instrument of large-scale administration which has ever been developed...." (Weber, 1947, p.58) In the early twentieth century this definition was a societal definition. Bureaucracies were believed to be the most efficient form of organization in existence. Bureaucracies, from the preceding deductions, possess both authority and efficiency. Modern institutional theories of organizations rely heavily on the development of authority and a belief in the efficiency evaluation criteria.

Weber's other approach to authority deals with traditional authority. Traditional authority has its roots in the history of the society in which an organizations exists. The organization is subject to forces of authority that are not part of the internal structure of the organization but rather emanate from the external environment. Traditional authority is a force of authority that acts onto an organization rather than a force acting outward from within. Because of its historical nature, traditional authority is taken-for-granted (Zucker, 1983). There is no basis within accepted behavior of society to question the authority. According to Parsons, the environment treats the authority as if it had "...always existed and been binding." (Weber, 1947, p.60) This definition of authority grants legitimacy to elements of society who operate within the framework of traditional authority. By adhering to traditional forms of authority, organizations are perceived

as legitimately exercising their rights. Authority based on the traditional precept is, according to society, legitimate social behavior. According to modern institutional theories, organizations seek a sanction of legitimacy from society in order to enhance their prospects of surviving.

Parsons, in formulating his approach to institutional theories of organizations, begins to deal with input and output issues. Parsons (1960) matures Weber's sociological observations of authority into a more modern translation by dealing with functions of outputs (productions) and inputs (resource generations) (Figure 2.2).

Parsons addresses the technical aspects (i.e., efficiency criteria) of output of organizations in an institutional environment. He raises questions that concern the valuation of output in difficult to define areas such as education and medicine. Parsons believes there is no concrete or universally agreeable method to measure output in these fields. His recommendation to managers, when trying to quantify these output fields, is to act not as professionals in their fields, but as mediators between the organization and the community or environment around the organization (Parsons 1960).

Parsons explanation for measuring output lays the foundation for the modern institutional concept of buffering or decoupling. Parsons contends that the

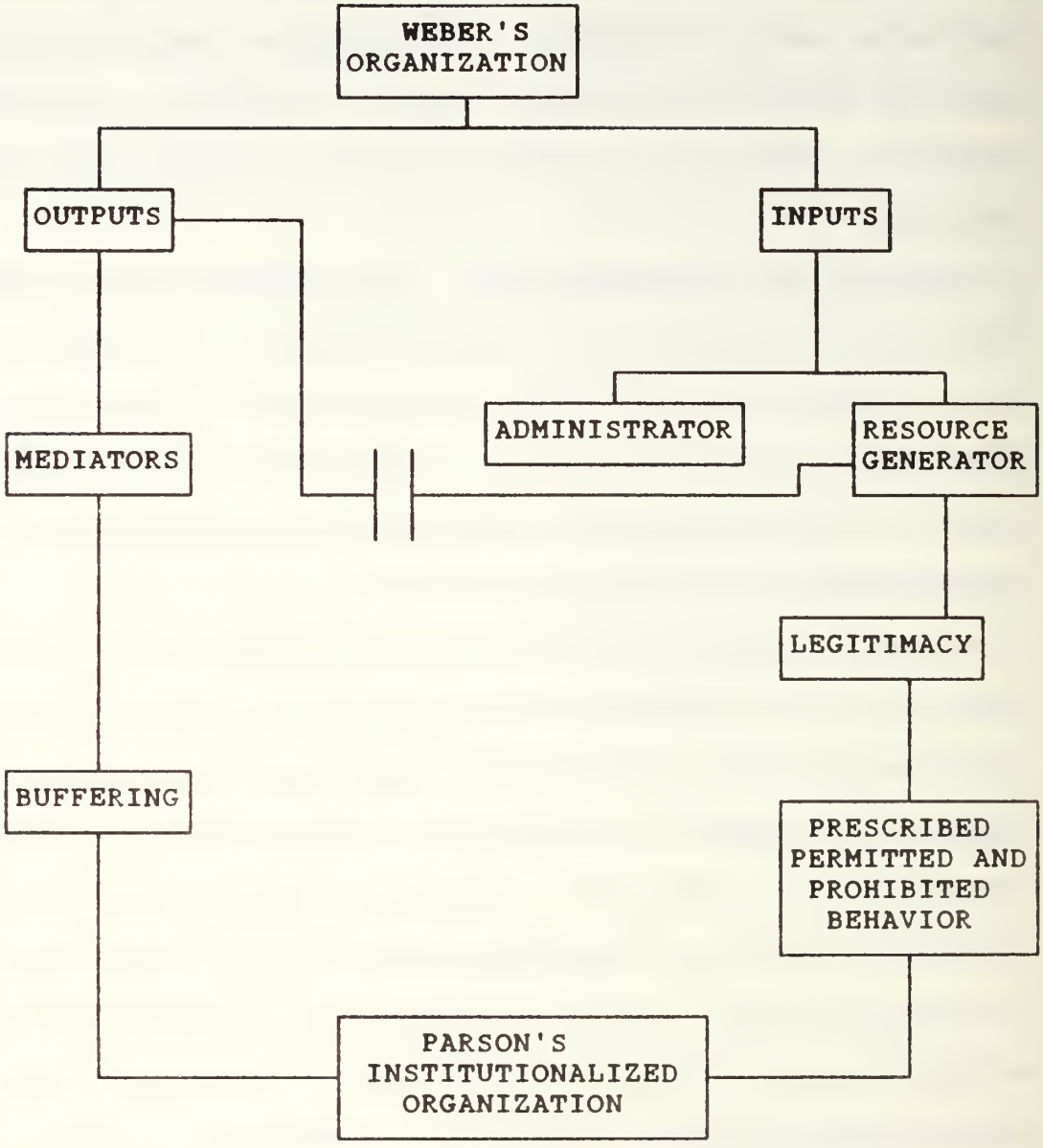

Figure 2.2 Parson's Organization

professional's (i.e., the manager's) function in the institutional environment is to act as a buffer between what goes on inside the organization and the scrutiny that can occur from the external environment. Since the output of these types of organizations (e.g., education and medicine) are difficult to measure, the evaluation of the organizations would fair poorly from outside appraisal. The institutional environment casts professionals in the role of mediator between the environment and technical inner core of the organization.

Parsons describes the manager from a dual function approach when dealing with inputs. One function of the manager is top executive and administrator of the organization, the other function is resource generator (money-raiser). Since the outputs of an organization in the institutional environment (as formulated by Parsons) are not well defined, well defined linkage between output (production) and input (resource generation) does not exist. In other words, the organization cannot rely on its output to generate resources for input. The concern of the manager then, should be for resource generation as a non-integrated function of the output process. Output and input functions are now two separate and distinct issues, they do not possess reciprocating dependence. The objective for the manager is to obtain resources for input. Parsons introduces the concept of legitimacy as a tool for

the manager to acquire resources in an institutional environment.

Social norms are what gives power to the use of legitimization in acquiring resources. Norms, at first, are internalized by individual members of society. Then as a collective, the norms constitute institutionalized societal norms. Once institutionalized, the norms form a standard for behavior in society that is considered legitimate. Elaborating further on the "grounding" of these social norms, Parsons writes:

> Legitimation...is the appraisal of action in terms of shared or common values...(in relation to) the social system. It is...clearly a very high level of generality.... It also operates through many different kinds of mechanisms...legitimization is the primary link between values...of the individual and the institutionalized patterns which define the structure of social relationships. (1960, p.175)

Parsons presents a definition of institutions which consist of normalized social values, as mentioned above, "...which define categories of prescribed, permitted and prohibited behavior in social relationships...." (1960, p.177) His definition of institutions (including the institutional environment) draws a parallel to his notion of legitimacy and enables the convergence of one with the other. This convergence of structure and legitimacy enables the manager in an institutional environment to act as a resource generator. Institutions and legitimacy evolved from different origins but now have the same form (i.e., are isomorphic).

C. OVERVIEW OF ALTERNATE THEORIES

Modern institutional theories do not offer a simple model for analysis of organizations. Rather, they provide a conceptual framework in which to view the organization when questions of evaluation and analysis arise. The theoretical state of institutional theories makes the comprehension of such theories difficult for those outside the sociology disciplines.

To set the stage for the development of contemporary institutional theories, it is best to outline an alternate theory of organizations in use today. This approach enhances the explanation of institutional theories by conveying what the theories are not. This tack is necessary to understanding institutional theories because of the wide-spread use of alternate theories. The alternate theory is generally assumed to be the viable method for evaluation and analysis of organizations (Pfeffer 1982). The alternate theory of organizations that is discussed below is the technical-rational theory.

The technical-rational theory of organizations is certainly the most well-known theory in use today. This familiarity comes about because technical-rational theory has its foundation in the free-market system so prevalent in our western culture (Pfeffer, 1982; Euske and Euske, 1986). The theory deals with easily measured processes that can be precisely and unambiguously determined within

the internal core of the organization. The technologies are readily controllable and highly predictable.

Two criteria will be used to explain the technologies of the technical-rational theory. Thompson (1967) lists these criteria as "instrumental" and "economic."

> The essence of the instrumental question is whether the specified actions do in fact produce the desired outcome, and the instrumentally perfect technology is one which inevitably achieves such results. The economic question in essence is whether the results are obtained with the least necessary expenditure of resources.... (Thompson, 1967, p.14)

Students of the management disciplines will recognize these concepts as effectiveness and efficiency (Figure 2.3). Effectiveness is defined as doing the right things, while efficiency is defined as outputs minus inputs.[1]

According to Thompson (1967), there are several variations of technologies: long-linked, mediating and intensive. All of these technologies can be evaluated using instrumental and economic evaluation criteria. Technologies all occur within the organization, they are segregated from the environment.

The long-linked technologies are today most typically known as "assembly line" processes. One operation is performed after another in sequence. The completion of a given operation is dependent on the immediately preceding act. Because of the repetitiveness and constant rate of

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[1] Alternately this relationship can be defined as outputs divided by inputs.

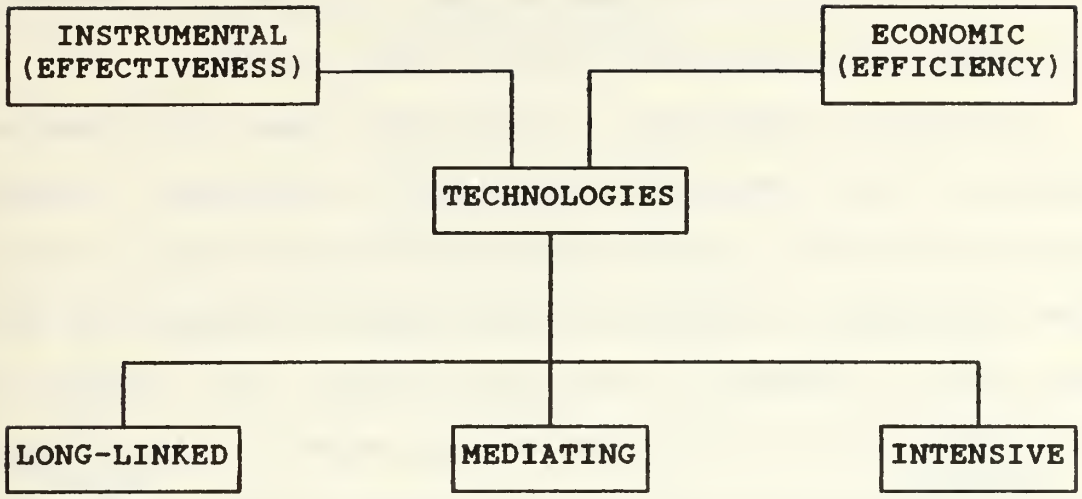

Figure 2.3. Effectiveness and Efficiency

action, this technology is easily regulated and measured. Very accurate economic information is available.

Thompson's second technology is the mediating technology. "Various organizations have, as a primary function, the linking of clients or customers who are, or wish to be, interdependent." (Thompson, 1967, p.16) The clients and customers have different origins and their interactions reflect this diversity. There must exist a standardizing mechanism to ensure compatibility between the organization and the environment (i.e., the clients). The success of this technology depends on the ability of the organization to deal with external actors who are both many and displaced over time, "...mediating technology requires operating in standardized ways and extensively." (Thompson, 1967, p.16) Compatibility, according to Thompson, is

achieved through standardization and ensures, "...segments are operating in compatible ways." (1967, p.17)

Intensive technology is dependent upon environmental feedback to the organization. This technology is most representative of military organizations and public health care facilities. Intensive technologies respond to cues from actors external to the organization. The response of the organization is dictated by the needs of the environment. The actions taken are dependent on the requirements of the external environment and vary accordingly.

The other side of the technical-rational perspective, rationality, deals with issues regarding the disposition of inputs and outputs in the environment external to the organization.

> ...(the) technical core is always an incomplete representation of what the organization must do to accomplish desired results. Technical rationality is a necessary component but never alone sufficient to provide organizational rationality, which involves acquiring the inputs which are taken for granted by the technology, and dispensing outputs which again are outside the scope of the core technology. (Thompson, 1967, p.19)

The external environment of the organization represents uncertainty. Since technologies only function in the stable internal core, organizational rationality must deal with the external environment (Figure 2.4). The manager using rationality labors to buffer (decouple) the precise technical inner core of the organization from the free

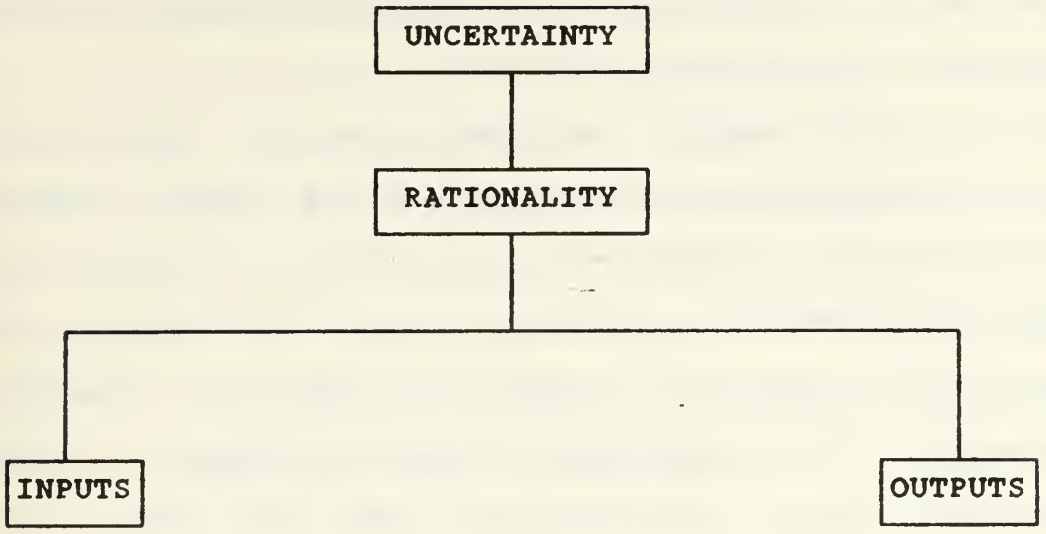

Figure 2.4. Organizational Rationality

flowing and uncertain external environment. Primarily, rationality functions in two ways:

> (1)...rationality...(seeks) to smooth out input and output transactions, and (2) under norms of rationality, organizations seek to anticipate and adapt to environmental changes which cannot be buffeted or leveled. (Thompson, 1967, p.21)

D. MODERN INSTITUTIONAL THEORIES

1. Introduction

Current institutional theories of organizations have surfaced from a core of writers who have tried to focus the concepts presented thus far into a model for evaluating and analyzing organizations. Though much of their literature is still evolving at the theoretical level and heavily reflects the sociological disciplines, these writers have attempted to apply these concepts to

organizations in order to clarify the developing conceptual framework of institutional theories.

In this section, the modern theories are detailed. It is impossible to present one concise theory. Institutional theories are difficult to explain and span a wide range of concepts. At this stage of development, it is best for the reader to attempt to grasp the conceptual framework of the theories as there is no proven and accepted precise, and unitary model of institutional theories (DiMaggio, 1988).

Modern institutional theories deal with the organization as evolving into an institutional structure. Contemporary writers of institutional theories seem to imply that the change process, that occurs in organizations, is a function of the environment and the primary focus of the theories. The discussion to follow is in three parts and follows the segregation of the literature into three distinct aspects of organizational change. First, a description is given of what causes organizations to be institutionalized and why the process is isomorphic in nature. Second, the diffusion or spreading of changes in organizations is explained along with the factors that contribute to successful change. Finally, the resulting institutional structures of organizations are detailed.

2. Isomorphism and Organizational Fields

In describing the conditions that cause an organization to be institutionalized, it is best to start with a central concept of contemporary institutional theories: isomorphism. A strict definition of the word is crucial to understanding its use in the context of institutional theories: "...similarity in organisms of different ancestry resulting from convergence...." (Webster's dictionary) In the context of institutional theories, isomorphism occurs when an organization absorbs characteristics of another element of society and becomes similar in structure. According to the principle of isomorphism, organizations that are dissimilar in origin and structure will, when institutionalization occurs, resemble each other in structure.

According to DiMaggio and Powell (1983), isomorphism of organizations in institutional environments occurs because of the presence of organizational fields. Organizational fields are similar elements of society that have come together to form homogenous groups. In this context, similar elements broadly define any actor or group of actors in the environment who have any number of concerns in common.

> By organizational field, we mean those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services and products. (DiMaggio and Powell, 1983, p.148)

The typical example used to define common interests is resource dependence. When one element in society is dependent on another element for funding, the dependent entity usually takes on the form of the organization providing the funding.

Elements of society do not form into organizational fields because of competition or belief in increased efficiency, but because of institutionalization. DiMaggio and Powell (1983), outline a process of institutional isomorphism. This process deals with more than competition between organizations for higher profits. "Organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness." (DiMaggio and Powell, 1983, p.150) The key concept presented by DiMaggio and Powell is institutional legitimacy. Elements of society come together (i.e., become isomorphic) in the institutional environment to internalize the benefits of Weber's authority and Parson's legitimacy. As in the example presented above of resource dependence, a dependent organization gains legitimacy from the resource provider because it has taken the same structural form as the resource provider.

Three mechanisms are given by DiMaggio and Powell (1983) that enable institutional isomorphic changes to occur: coercive, mimetic and normative.

Coercive isomorphism occurs when an external force acts on an organization to become similar to another organization when it normally would not do so. These forces can be both formal and informal.

Formal coercive isomorphism may come about from legislation that requires an organization to become similar to another. Again using resource dependence as an example, federal legislation may require organizations receiving federal funds to adopt similar financial control systems (i.e., a system that can be readily audited by federal auditors, or meets certain federal standards for financial control) in order to qualify for funding.

Informal coercive isomorphism may take the form of professional pressure to conform to a given philosophy. Organizations may be pressured to adopt particular philosophies held by sanctioning professional organizations in order to maintain endorsement. A physician may not agree with a particular medical association's recommended treatment, but must conform to maintain endorsement and thus societal legitimacy. In either case, formal or informal, coercive isomorphism is the result of an external force applied to an organization forcing convergence in structure and form.

Mimetic isomorphism processes occur when an organization attempts to copy another organization because of uncertainty in the environment. DiMaggio and Powell

(1983) describe this situation as "modeling." Organizations may model themselves after other organizations, "...when organizational technologies are poorly understood, when goals are ambiguous, or when the environment creates...uncertainty." (DiMaggio and Powell, 1983, p.151) When uncertainties are met in the environment, an organization seeks ways in which to make the environment predictable. Modeling is a cost-effective and easy method to deal with uncertainty. The organization facing uncertainty believes that the organization being mimicked deals with uncertainties successfully. By modeling itself after the "successful" organization, the organization believes it too will deal with uncertainty successfully.

> One of the most dramatic instances of modeling was the effect of Japan's modernizers in the late nineteenth century to model new governmental initiates on apparently successful western prototypes...the imperial government sent its officers to study the courts, Army, and police in France, the Navy and postal system in Great Britain, and banking and art education in the United States. (DiMaggio and Powell, 1983, p.151)

Professionalization gives rise to the third type of isomorphism: normative isomorphic process. Professionalization, as defined by DiMaggio and Powell is, "...the collective struggle of members of an occupation to define the conditions and methods of their work, to control the production of procedures, and to establish a cognitive base and legitimation for their occupational autonomy." (1983, p.151) Normative implies standards, professionalization

attempts to impose these standards upon members of organizational fields.

Standardization is achieved in normative isomorphic processes through professional organizations and formal education. Organizations belonging to a professional association or possessing an education standard, are said to be professionalized. The standards are maintained by all members of the organizational field and they thereby become similar in structure. Normative isomorphism therefore achieves legitimacy in the eyes of the environment for the members of the organizational field.

Professional associations are examples of normative isomorphism. Membership in an association means the member meets a "standard" that ensures certain qualifications. The member may, in fact, not possess the abilities representative of the qualification, but because he is a member of the association he is therefore certified. Formal education also produces normative isomorphism. A specific formal education may be a requirement for membership in a particular organizational field. Certification is granted by virtue of the formal education even though the formal education does not support the certification.

3. Diffusion and Acceptance of Innovations

Institutional theories offer the argument that the diffusion and acceptance of change in an organization are directly affected by the degree of institutionalization in

an organization (Rowan, 1982; Tolbert and Zucker, 1983). The argument goes as follows: "Once an innovation (change) is institutionalized, it is adopted and accepted not because it has rational or technical properties, but because social expectations are that good, well-managed organizations will do so." (Pfeffer, 1982, p.246) This argument relates to earlier discussions that social norms are accepted by society as "the way things are." This argument tolerates the notion that in the early stages of organizational change, before the innovations become institutionalized, rational and technical properties dominate the acceptance criteria for the innovation.

Tolbert and Zucker (1983), studying diffusion of civil service reform, found empirical evidence to support the above hypotheses. Their study analyzed the process of civil service adoption in American cities between 1880-1935. Tolbert and Zucker found that, initially, acceptance of civil service reform was based on a desire by the cities to be more efficient. They attributed this desire to an individual city's characteristics (e.g., population and ethnic origins). Tolbert and Zucker attributed the demand for rational behaving municipal government to the rise of the middle-class, white-collar, educated professional. Up until this time, large city politics were dominated by the immigrant based socioeconomic classes. The acceptance of civil service reform by municipalities meant the

elimination of the political machinery that dominated many cities of the time. The political machinery was characterized by nepotism, inefficiency and stagnation. As more and more cities adopted civil service procedures, the nonadopting municipalities began to see themselves as being outside the established social norms of rational behavior. In order to maintain legitimacy as an organization (i.e., the municipal government) the nonadopting municipalities moved to accept civil service reform. When this acceptance occurred on a society wide basis, civil service reform was then institutionalized.

Pfeffer's argument (that change once institutionalized is accepted because of social expectations) is substantiated by society's acceptance of civil service reform.[2] Tolbert and Zucker's initial deduction that innovation acceptance of civil service reform was based on individual cities characteristics, set the stage for the institutionalization that was to follow. After around 1930 (Tolbert and Zucker, 1983) individual characteristics of cities were no longer a force for acceptance of civil service reform. A desire for rationality in municipal government became the order of the day. Civil service

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[2] Tolbert and Zucker (1983) estimate the institutionalization of civil service reform in America to have occurred around 1930.

Another study that explains the diffusion of innovations in the institutional environment was conducted by Rowan (1982). Rowan examined the expansion of administration in public school districts. The innovation presented in this case was the formation of new personnel positions. Rowan was concerned with why some of these positions were accepted rapidly and remained in place, while others were not accepted at all. Rowan's approach to his analysis is focused on the existence of an institutional environment.

Rowan introduces the idea of a state of "balance" in the institutional environment.

> Balance is defined as the establishment of ideological consensus and harmonious working relations among legislators, publics, regulatory agencies, and professional associations. The basic idea is that innovative administrative services tend to diffuse widely and be retained for long periods in domains with balanced institutional systems, whereas in domains characterized by imbalance, diffusion is less widespread and retention more precarious. (Rowan, 1982, p.259)

Balance is a characteristic of the institutional environment in which those social norms and societal beliefs which are the basis of rationality and legitimacy, are held in common by all actors involved with the innovation. The innovation proposed must be in balance with all actors in the environment. They must share the same social norms and societal beliefs for the innovation to survive.

Rowan is saying that organizational changes are dependent not only on elements within the organization but

Rowan is saying that organizational changes are dependent not only on elements within the organization but also on external elements of the institutional environment. Internal elements may see the efficiency or effectiveness criteria as justification for an innovation. But this may not be enough to guarantee longevity of change. If there is not agreement concerning the innovation by all members of the institutional environment, then the success of innovation is at risk. Through his analysis of school districts, Rowan found changes (e.g., psychology positions) that were not institutionalized failed to persist because the change and the actors were out of balance. There was not an "ideological consensus" nor a "harmonious working relationship" among the actors involved. The actors in the institutional environment did not share the same notion of legitimacy; therefore, the innovation did not last.

4. Structure of Institutionalized Organizations

Formal structures of organizations that are institutionalized reflect common characteristics of institutional theories. The characteristics are internalized in the organization enabling the organization to maintain its existence. Organizations embody what is perceived by society as rational behavior and methods in order to satisfy society's expectation.

> ...organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts.... Organizations that do so increase their

> legitimacy and their survival prospects.... (Meyer and Rowan, 1977, p.530)

The situation described above generally occurs in activities that produce output that are hard to measure and/or difficult to define (e.g., education and government). As discussed earlier, the efficiency criteria of evaluation can only properly be applied when output and input are easily measured. When outputs and inputs are not easily measured, the organization, in order to survive, adopts a structure that conforms to societal norms and expectations of rationality.

Organizations adapt to this situation by adopting society's "myth" and "ceremony" of organizational structure (Meyer and Rowan, 1977). In the context of institutional theories, myths are societal beliefs about rational behavior and organizations. Institutional theories argue that it is "myth" (of society) that a technical-rational evaluation criteria is the proper metric for all organizations.[3]

"Ceremony" is the process of adopting the physical properties of societal myths into the organizational structure. This circumstance can be illustrated in the case of any organization adopting an efficiency evaluation criteria when it is not appropriate to do so (i.e., input

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[3] This myth is particularly true for non-profit organizations.

and output or not easily measured). The criteria is adopted as ritual only. The organization is merely trying to convey to society that it is following rational behavior. The organization may go through the motions of performing the rational procedures but may in fact be following an alternate set of procedures. The environment sees the organization as performing rational procedures. The effect is to gain legitimacy support from society through the displayed use of rational behavior.

The organizational structure of the organization then reflects these embodied myths and ceremonies to the environment. In actuality, the reflection is not representative of what is occurring within the organization. This discontinuity between what is occurring internally in the organization and what is being projected onto the environment is termed in the institutional theories literature as "decoupling" or "buffering" (Meyer and Rowan, 1977). This state of discontinuity is a fundamental determinant of an institutionalized organization. The preceding elaborations can be summarized into three propositions of institutional theory:

1) Organizations evolving in environments with elaborated institutional rules create structure that conform to those rules.
2) Organizations in institutional environments buffer their organizational structures from their technical activities.
3) Organizations with structure that conforms to institutional rules tend to succeed in environments with elaborated institutional structure. (Meyer, Scott and Deal, 1983, p.48)

Empirical work performed by Meyer, Scott and Deal (1983), verified the above propositions though an analysis of elementary schools and associated school districts. The schools studied were found to be concerned with maintaining their status as legitimate organizations. According to the researchers, the school's actual concern was the maintenance of social legitimacy rather than the end product of education (Meyer, Scott and Deal, 1983).

Schools maintain this sense of legitimacy by requiring accreditation of its teachers. The accreditation comes in the form of credentials (i.e., diplomas and certificates) (Meyer, Scott and Deal, 1983). The holding of credentials conforms to the societal "myth" that teachers possess certain abilities. In actuality, the teachers may not possess any of the abilities as certified by the credentials. The school "ceremoniously" embraces the accreditation mystique and thus satisfies and conforms to societal expectations. The structure of the organization conforms to the institutionalized role that accreditation plays in society. Since conforming with societal rules has occurred the organization achieves a high probability of success.

III. FINDINGS OF THE RESEARCH

A. INTRODUCTION

The purpose of this chapter is to report the findings of the research. An exhaustive literature search was conducted for applications of institutional theories. Studies that are included in this research contain applications of institutional theories. The studies used three primary research methods: opinion, archival and empirical (Buckley, Buckley and Chiang, 1976).

Opinion research is the process by which "...the researcher seeks the views, judgments or appraisals of other persons with respect to a research problem...." (Buckley, Buckley and Chiang, 1976, p.23) Questionnaire and interview are the predominant methods used by researchers using opinion research.

Empirical research is based upon observing and/or experiencing the research problem. The researcher observes the problem first-hand without relying on a third party to convey the observations. The researcher can also participate in the experiment, and through this participation experiences the context of the problem.

Archival research is the finding and examination of recorded facts. Two types of archival research are evident in the studies: primary and secondary. Murdick defines

primary sources as "...original documents or official files or records..." and defines secondary sources as "...publications of data gathered by other investigators." (Murdick, 1969, p.8)

The research method used for this study is meta-analytic in nature (Hunter, 1982; Rosenthal, 1984). The technique is to conduct a study across studies. Meta-analysis enables the comparison of unlike studies by finding common elements. This technique was used to find similarities or trends in the studies as a result of operationalizing the theory through the research studies.

In order to carry out this comparison, the various studies had to be synthesized into like elements (Table 3.1) and this was accomplished through the use of a protocol. The protocol was used to collect data from each study according to a format that enabled comparisons of these elements. The protocol was formulated with two primary areas to enable the collection and aggregating of similar data elements. The primary areas are: unit of analysis and variables.

The unit of analysis (Freeman, 1978) determines the level of organization being studied. Proper identification of unit of analysis allows comparisons of similar levels. According to Kerlinger, "... a variable is a property that takes on different values." (1973, p.29) The variables are defined as either dependent or independent.

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
school district	schools [National Center for Education Statistics	Meyer, Scott, Strang (1987)	NP	administrative differentiation	1. socioeconomic bases 2. size 3. economic dependency 4. density of population 5. geography 6. legislation
college or university	higher education institutions [National Center for Education Statistics]	Tolbert (1985)	NP	administrative differentiation	1. size 2. research orientation
school	teachers, principals, superintendents [survey]	Meyer, Scott, Deal (1983)	NP	homogenity of structure	1. perceived policies in place

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
school district	schools [archival]	Rowan (1982)	NP	adoption and retention of innovative structure (change)	1. scope of functions performed 2. embeddedness in institutional environment (profes-sionalization) 3. professional associations 4. number of accreditation sources 5. legislation
medical school	community physicians, students, faculty, administra-tors [survey, interview, observation, archival]	Kimberly (1981)	NP	strategies for survival and growth (effectiveness)	1. scope of functions performed 2. economic dependency 3. infrastructure factors 4. organization input level 5. socialization process

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
(a) ethical pharmaceutical industry	executives, managers trade meetings, congressional hearings, industry biographies [interview, trade meetings, archival]	Hirsch (1975)	P	profitability	1. control over distribution and wholesale price of product 2. patents and copyrights and associated administration 3. predictability of adoption behavior by independent gatekeepers and opinion leaders
(b) phonograph record industry			P	profitability	
law firm	law firms [published survey of major law firms]	Tolbert (1988)	P	formal socialization	1. scope of functions performed 2. size 3. growth rates 4. socialization process

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
newspaper publishing industry	newspaper organizations [historical sources]	Carroll, Huo (1986)	P	founding and death rates performance of ongoing operations	1. political influence 2. infrastructure factors 3. general state of the economy 4. business failures
general surgical hospital	general surgical hospitals [various government statistics and census, archival]	Zucker (1987)	NP	control by the institutional environment of organizational change effects of change on organizational performance and survival	1. socioeconomic bases 2. scope of functions performed 3. performance 4. economic dependency 5. embeddedness in institutional environment (professionalization) 6. efficiency 7. organization input level

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
general surgical hospital					8. legislation 9. nonroutine diffusion 10. normal diffusion 11. administrative innovation
(a) scholarly book publishing industry	editors, firms	Powell (1988)	P	decision making process	1. infrastructure factors 2. economic dependency
(b) public television industry	officials, stations [interview, field observation, archival]		NP	decision making process	3. external groups

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
international economy, world polity	nation states [various official statistics and census]	Kamens, Lunde (1988)	NP	growth rates	1. political influence 2. socioeconomic bases 3. scope of functions performed 4. size 5. education level of population 6. economic dependency
civil service organization	municipalities [various government statistics, archival]	Tolbert, Zucker (1983)	NP	adoption and retention of innovative structures (change)	1. prior adoption of change 2. political influence 3. socioeconomic bases 4. scope of functions performed 5. age 6. size

TABLE 3.1. DATA COMPILED BY SIMILAR ELEMENTS (CONT'D)

Unit of Analysis	Sample	Author	Profit/ Nonprofit	Dependent Variable	Independent Variables
individual	individuals [lab experiment]	Zucker (1977)	--	adoption and retention of innovative structures (change)	1. task 2. personal influence 3. organizational context 4. office
voluntary social service organization	voluntary social service organizations [survey, interview, archival]	Oliver (1988)	NP	administrative differentiation decision making process goal multiplexity formalization of policies and procedures	1. infrastructure factors 2. professional associations 3. legislation 4. exchange of resources 5. written contracts 6. sponsorship

> An independent variable is the presumed cause of the dependent variable, the presumed effect...In experiments the independent variable is the variable manipulated by the experimenter...The dependent variable...is the variable predicted to, whereas the independent variable is predicted from. (Kerlinger, 1973, p.35)

Cause and effect relationships were sought after in order to classify variables. Variables that were presumed as being affected by other variable were classified as dependent variables, while variables that were presumed as the cause of the effect were classified as independent variables.

The elements of the protocol were then compared across various dimensions that became evident during the research. The dimensions appeared to be natural groupings of the data. Four dimensions were used for analysis: sample and research method, unit of analysis, variables and the relationship of unit of analysis and variables. These four dimensions are presented in this chapter.

B. SAMPLE AND RESEARCH METHOD CATEGORIES

As discussed above, the research methods used in the studies fall into three primary categories. Some studies used combinations of these methods. The studies were classified by research method into the following categories: secondary archival, empirical, "other" (either opinion, primary archival, or a combination of opinion, empirical and primary archival).

1. Secondary Archival Research

The predominant research method used in the studies is secondary archival research. Forty-four percent of the studies used the secondary archival method of research. The data was collected from official and quasi-public statistics and census. Quasi-public organizations are organizations that are essentially public, in that they provide the same services as government organizations, yet are under private ownership or control. Data from quasi-public sources was initially gathered by official sources but filtered and edited by the quasi-public organization. Data from official sources came directly from published data collected by government agencies.

Two studies used data from the National Center for Education Statistics (quasi-public), which synthesized data from government sources into its own structure (Tolbert, 1985; Meyer, Scott and Strang, 1987). One study of law firms (also a quasi-public source) used data that was collected and edited in a published survey of law firms, American Lawyer Guide to Leading Law Firms (Tolbert, 1988).

2. Empirical Research

The second category of research method, empirical, accounts for 25 percent of the studies. Studies were classified as empirical when the researcher displayed evidence of "...observation or experience..." (Buckley, Buckley and Chiang, 1976, p.24) in the gathering of the

data. The researcher, in empirical research, is "...an eye-witness to the events which take place." (Buckley, Buckley and Chiang, 1976, p.24) One of the studies was a laboratory experiment (Zucker, 1977). The remaining studies were conducted in a field setting. The researcher entered the organization not only to conduct interviews, but to gain insight through first hand observation of daily occurrences (Powell, 1988; Oliver, 1988).

3. "Other" Research

The final category, "other" research methods, consisted of one study using the opinion research method (Meyer, Scott and Deal, 1983), one study using primary archival research method (Rowan, 1982), and two studies using a combination of opinion, empirical and primary archival (Hirsch, 1975; Kimberly, 1981). The "other" category of research method accounted for 31 percent of the studies. The studies that used a combination of research methods relied predominately on survey and interview techniques.

C. UNIT OF ANALYSIS

For the purpose of meta-analysis, it is critical that organizations be compared across similar levels. There would be little value in comparing unlike units, such as a firm versus a whole industry. The unit of analysis can best be described as "...how to bound the organization in such a way that observed units are unambiguously separable

from each other and from their environment in both time and space." (Freeman 1978, p.336) By applying this criteria, it is possible to determine the level of organization being analyzed in the study.

Four levels of unit of analysis were identified in the studies: single organization, multi-organization, individual, profit organization and non-profit organization. The single organization, multi-organization and individual levels comprise a dimension of structure, while the profit and non-profit levels comprise a dimension of process (Zucker, 1983). The structure dimension is concerned with the physical boundaries and arrangement of the organization such as lines of authority and levels of organization. Process dimension deals with actions in the organization, such as whether or not the organization seeks a profit. The process dimension includes aspects of management such as strategy, goals and policies.

1. Structural Dimension

Across the structural dimension unit of analysis 44 percent of the studies were single organization and 50 percent of the studies were multi-organization. Individual unit of analysis accounted for the remaining six percent. Single organizations are bounded in that they are not linked to other organizations of similar function (e.g., school and not school district). Studies within the single organization focused primarily on education organizations

(Kimberly, 1981; Meyer, Scott and Deal 1983; Tolbert, 1985) and medical organizations (Zucker, 1987b).

The multi-organization unit of analysis is the aggregation of single organizations (e.g., school district and industry). This unit of analysis sets its bounds around the interactions that occur among the individual organizations. Together, the aggregated single organizations and their interaction form the multi-organization unit of analysis. School districts (Rowan, 1982; Meyer, Scott and Strang, 1987) accounted for 25 percent of the unit of analysis in this dimension. Various commercial production industries (Hirsch, 1975; Carroll and Huo, 1986; Powell, 1988) accounted for 50 percent of the unit of analysis in this dimension.

Individual level unit of analysis was studied in the laboratory setting (Zucker, 1977). The goal was to study individual reaction to stimuli in the context of institutional theories.

2. Process Dimension

The process dimension unit of analysis is separated into two types of organizations: profit and non-profit. Non-profit organizations accounted for 62 percent of this dimension and profit organizations account for 31 percent of this dimension. One study or six percent of the units of analysis where neither profit nor non-profit. This one study was conducted as a lab experiment with individuals.

3. Structural and Process Dimension

The two dimensions of unit of analysis (structure and process) are combined in Table 3.2. The elements of the dimensions are listed and the intersection frequencies are given.

TABLE 3.2 STRUCTURAL AND PROCESS DIMENSION

		Process		
		profit	non-profit	
Structural	multi	25%	25%	50%
	single	6%	38%	44%
	individual	--	--	6%
		31%	63%	

The intersection of non-profit and single organization occur with the highest frequency. As an element of structure, multi-organization units of analysis dominate the structural dimension with 50 percent of the studies being so classified. As an element of process, non-profit organizations dominate the process dimension with 63 percent of the studies being so classified.

D. VARIABLES

The variables in the studies are recorded according to two frameworks. The first framework looks at the dependent variables in terms of "families" of variables. The dependent variables appeared to fall into two families of

structure and process (Zucker, 1983). The other framework of analysis of variables is a simple frequency count compared to the unit of analysis dimensions. The frequency data was tabulated by dependent and independent variables.

1. Families of Dependent Variables

The structural family of dependent variables accounts for 19 percent of the dependent variables. The structural family of dependent variable were used to measure the effect of change in the structure of an organization. Three dependent variables were judged to be especially significant and are discussed in this section. The first dependent variable in this family is the adoption and retention of innovative structures (change) in an organization (Zucker, 1977; Rowan, 1982; Tolbert and Zucker, 1983). The second structural dependent variable is the extent of administrative differentiation in an organization (Tolbert, 1985; Meyer, Scott and Strang, 1987; Oliver, 1988). This variable is concerned with what causes change in the administrative structure of an organization and whether or not the change is maintained. The remaining structural dependent variable is homogeneity of structure (Meyer, Scott and Deal, 1983) which is a measure of the structural sameness among separate but similar elements of organizations.

The process family of dependent variables accounted for 81 percent of the dependent variables. There are two

predominate variables: profitability (Hirsch, 1975) and the decision making process (Powell, 1988; Oliver, 1988). Profitability is measured by a return on investment criterion. The decision making process is measured by what level within the organization a decision is made. The remaining process dependent variables are: effectiveness (Kimberly, 1981), founding and death rates, performance (Carroll and Huo, 1986) socialization (Tolbert, 1988), control by the institutional environment of organization change (Zucker, 1987b), effects of change on performance and survival (Zucker, 1987b), growth rates (Kamens and Lunde, 1988), goal multiplexity--the number of different identified service areas pursued by the organization, and policies and procedures (Oliver, 1988).

2. Frequency of Variables

Frequency count analysis tabulates the occurrence of a variable across the various units of analysis. The following dependent variables occur across three units of analysis (Table 3.1): adoption and retention of innovative structure (Zucker, 1977; Rowan, 1982; Tolbert and Zucker, 1983:), administrative differentiation (Tolbert, 1985; Meyer, Scott and Strang, 1987; Oliver, 1988), decision making process (Powell, 1988; Oliver, 1988). Profitability (Hirsch, 1975) occurs across two units of analysis (ethical pharmaceutical industry and phonograph record industry),

the remaining dependent variables occur in only one unit of analysis.

The independent variables occurred as follows:

TABLE 3.3. FREQUENCY OF INDEPENDENT VARIABLES

Frequency	Independent Variable
6	scope of functions performed
5	size
5	economic dependency
4	socioeconomic basis
4	infrastructure factors
4	legislation
3	political influence
2	professionalization
2	organization input level
2	control over distribution and wholesale price of product
2	patents and copyright administration
2	predictability of adoption behavior by independent gatekeepers and opinion leaders
2	socialization process
2	professional associations

All other independent variables occur singularly.

E. RELATIONSHIP BETWEEN UNIT OF ANALYSIS AND VARIABLES

Units of analysis and variables were discussed previously and are now presented in a two dimensional analysis. The two dimensions of unit of analysis, structur and process, are analyzed by disaggregating them into their major sub-elements: single organization, multi-organization, profit organization and non-profit organization. Each element is further subdivided into two comparisons:

unit of analysis versus dependent and independent variables.

1. Single Organization

The single organization unit of analysis is represented by 71 percent of the dependent variables. The variables are dispersed throughout the range of variables with only two variables occurring more than once for a particular unit of analysis: adoption and retention of innovation structures (Zucker, 1977; Tolbert and Zucker, 1983) and administrative differentiation (Tolbert, 1985; Oliver, 1988). The single organization unit of analysis displays a concentration in the structural family of dependent variables. The three dependent structural variables described earlier, account for only 30 percent of the variables occurring within the single organization unit of analysis. Of all the dependent variable occurrences in the single organization unit of analysis, 42 percent of the dependent variables occur in the structural variable family. The remaining 70 percent of the dependent variables occur within the single organization unit of analysis and are dispersed over the range of variables.

Within the single organization level, 74 percent of the independent variables occurred. The variables were dispersed with two exceptions: scope of functions performed (Kimberly, 1981; Tolbert and Zucker, 1983; Zucker, 1987b; Tolbert, 1988) and size (Tolbert and Zucker, 1983;

Tolbert, 1985; Tolbert, 1988). Scope of functions performed and size account for only seven percent of the independent variables occurring in the single organization unit of analysis; yet, these two variables account for 17 percent of all independent variable occurrences within single organization units of analysis.

2. Multi-Organization

The multi-organization level of analysis is represented by 50 percent of the dependent variables. The variables are widely dispersed across the range of variables. The concentrations of dependent variable occurrences are profitability (Hirsch, 1975) and decision making process (Powell, 1988). These variables each occur twice in the multi-organization level of analysis.

Only 43 percent of the independent variables appear across the multi-organization unit of analysis. Within that range of variables the occurrences are widely dispersed. The only significant concentration is in the economic dependency variable (Meyer, Scott and Strang, 1987; Powell, 1988; Kamens and Lunde, 1988).

3. Profit Organization

In the profit category only 36 percent of the dependent variables occurred. All the dependent variables belonged to the process family of variables and were widely dispersed throughout the range of occurrence. Only one

variable occurred in more than one unit of analysis: profitability (Hirsch, 1975).

Only 28 percent of the independent variables occurred in the profit unit of analysis category. The occurrences were widely dispersed throughout the range of occurrences.

4. Non-Profit Organization

The occurrence of dependent variables in the non-profit category unit of analysis is very broad; 71 percent of the dependent variables occurred in this category. The variables are concentrated in the structural family of variables. The structural family of variables account for 35 percent of the total occurrences. The structural family of dependent variables is centered on administrative differentiation (Tolbert, 1985; Meyer, Scott and Strang, 1987; Oliver, 1988) and adoption and retention of innovative structures (Rowan, 1982; Tolbert and Zucker, 1983).

Independent variables in the non-profit category represent 69 percent of total independent variables. Five of the variables are predominant: scope of functions performed (Kimberly, 1981; Rowan, 1982; Tolbert and Zucker, 1983; Kamens and Lunde, 1988), economic dependency (Kimberly, 1981; Zucker, 1987b; Meyer, Scott and Strang, 1987; Powell, 1988; Kamens and Lunde, 1988), socioeconomic bases (Tolbert and Zucker, 1983; Meyer, Scott and Strang, 1987; Zucker, 1987b; Kamens and Lunde, 1988), size (Tolbert and

Zucker, 1983; Tolbert, 1985; Meyer, Scott and Strang, 1987; Kamens and Lunde, 1988) and legislation (Rowan, 1982; Zucker, 1987b; Meyer, Scott and Strang, 1987; Oliver, 1988).

IV. ANALYSIS OF THE RESEARCH

A. INTRODUCTION

The purpose of this chapter is to analyze the data described in the preceding chapter. The analysis of the data is conducted in the context of the following question: Do the research studies test the theory? That is, is the theory appropriately operationalized? This question is the basis for assessing if institutional theories have utility for the managers in organizations.

This chapter follows the same format as the preceding chapter. The analysis is done according to the following categories: sample and research method, unit of analysis, variables and relationship between unit of analysis and variables. Each category is analyzed in a context of the question posed above. Conclusions and implications for application of institutional theories by managers are given in the last section.

B. SAMPLE AND RESEARCH METHOD

A majority of the studies (94 percent) used an *ex post facto* research method. Only one of the studies (Zucker, 1977) used experimental research. *Ex post facto* research studies a problem after the fact, that is after events have occurred.

> *Ex post facto* research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because the manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made, without direct intervention, from concomitant variations of independent and dependent variables. (Kerlinger, 1973, p.379)

A drawback to this research method is that the researcher has no control over the events that are being studied and thus cannot control the independent variables. Without control over the independent variables, there is a danger that the cause and effect relationships will not be measured properly or that unknown relationships are neglected. This can lead to erroneous conclusions. The concern then, with *ex post facto* research, is whether the conclusions drawn are accurate based on the relationships that have occurred. (Kerlinger, 1973)

Ex post facto research has another weakness regarding the randomness of assignment of subjects to experiments. Kerlinger (1973), refers to this weakness as "self-selection." Experimental research allows the random assignment of subjects to experiments, this can be done through numerous processes of random number generation. Since *ex post facto* research occurs after the fact, the subjects have already assigned themselves to the problems being studied. Characteristics or traits possessed by the subjects, that could be extraneous or unduly influence a variable, are uncontrolled and may interject noise into the research (Kerlinger, 1973). Both of the above, lack of

control and self-selection, can lead to improper interpretation of research results.

Though the weaknesses of *ex post facto* research presented above are significant, there are strengths in this type of research. According to Kerlinger, there are some fields of study that "...do not lend themselves to experimental design." (1973, p.392) *Ex post facto* research may be the only viable research method for such areas as education, health care and government. These areas can more broadly be categorized as non-profit organizations, though occasionally they may be for profit.

Non-profit organizations, as a larger domain of the subsets of education, health care and government organizations, fits the profile of *ex post facto* research because of difficult to measure variables (i.e., hard to define units of output and input). The variables in these fields can be very difficult to operationalize and thus conduct experimental research. To attempt to control variables dealing with education (i.e., how good is the education an individual receives?), health care (i.e., how good is the health care an individual receives?), or government (i.e., how good is the government service an individual receives?) is extremely difficult.

1. Secondary Archival Research

The largest category of research method is secondary archival with 44 percent of the studies (Tolbert and

Zucker, 1983; Tolbert, 1985; Meyer, Scott and Strang, 1987). This is expected based on the nature of *ex post facto* research and the definition of secondary archival research. The studies in this category used official and quasi-public statistics and census data that was gathered after the fact.

The research studies in this category focused on units of analysis that fit the *ex post facto* profile. These units of analysis, as listed in Table 3.1, fit into the category of organizations that are described above with hard to measure units of output and input (i.e., non-profit). A majority of these studies, 71 percent, did sampling in areas that were either education, health care, or government related. The units of analysis in these areas (e.g., school district, general surgical hospital and civil service organization) fit the profile of *ex post facto* research and the samples (Table 3.1) were appropriate for these units of analysis, secondary archival research is most appropriate for this group.

2. Empirical Research

All but one study in the empirical research category was conducted in the domain of the field setting, the other being Zucker's lab experiment (1977). The field study research was passive and did not attempt to control the research variables. This is expected due to a combination of the non-profit nature of the units of analysis

(public television industry and voluntary social service organization) and the resultant use of *ex post facto* research. As discussed above, variables found in non-profit organizations are difficult to measure and therefore are difficult to manipulate in controlled research. This situation lends itself to the use of *ex post facto* research, even when the research is empirical. In this sub-category of field setting, 67 percent of the units of analysis (public television industry and voluntary social service organization) fit the criteria for *ex post facto* research with hard to measure units of output and input (e.g., degree of formalization of policies and procedures; centralization of decision making; influences on the decision making process regarding output; funding sources attached to inputs; loosely coupled external groups; membership in formal affiliations).

3. "Other" Research

The "other" category also relied heavily on *ex post facto* research method; 60 percent of the units of analysis (non-profit organizations) fit the profile for *ex post facto* research. The "other" category of research method accounted for 31 percent of all units of analysis. The relatively large size of the "other" category gives an indication of the complexities the researchers faced in studying institutional theories. No one research method totally captured the complexities of the organizations nor

was exclusively suited for studying institutional theories. Hirsch (1975) and Kimberly (1981) used a combination of opinion, empirical and archival methods to capture an array of variables. The researchers apparently felt that numerous methodologies were necessary to operationalize the theory.

C. UNIT OF ANALYSIS

According to Pfeffer, "The unit of analysis should correspond to the level of the theoretical mechanisms that are presumed to be affecting the dependent variables." (1982, p.15) What Pfeffer is saying, is that the elements of theory that are being investigated should be on the same level as the dependent variables which are the instruments used to investigate the theory. To ensure that this relationship is properly formed is difficult to do and according to Pfeffer (1982), is dependent upon judgement. The issue is not as simple as saying the dependent variable determines the level of unit of analysis. For example, a dependent variable concerned with characteristics of the individual do not dictate a level of analysis at the individual level. Similarly, aggregation of characteristics of dependent variables are not necessarily the proper unit of analysis for a collectivity (Pfeffer, 1982). In other words, the aggregation of characteristics of individuals do not necessarily constitute conclusions for an organization of which the individuals are members.

1. Structural Dimension

The structural dimension unit of analysis is subdivided into single and multi-organization levels. The dimension is clearly evident in the analysis, yet there is no aspect of theory to articulate this particular dimension. Data collected in the studies of single organization units of analysis, were collected either from the same level (i.e., from other single organizations) or, from the individual level (i.e., from individuals who belong to the organization). For example, one study in which the unit of analysis is a school (Meyer, Scott and Deal, 1983), used teachers, principals and superintendents as a data source. A different study also using a unit of analysis of a school (Tolbert, 1985) collected data from other education organizations.

Similarly, the multi-organization unit of analysis was evident in the research with no reference in theory. Research of multi-organization units of analysis used data from both the single organization and individual level. For example, one study's unit of analysis is a commercial industry and drew data from the individual level which included executives and managers (Hirsch, 1975). Other studies researching school districts used data from component schools which are single organizations (Rowan, 1982; Meyer, Scott and Strang, 1987).

There is apparent disregard for the concept of unit of analysis and its implications for research conclusions in the structural dimension unit of analysis. As detailed above there is quite often data collected from levels of analysis different than the level of interest. For example, Meyer, Scott and Deal (1983) sample teachers, principals and superintendents to draw conclusions on the unit of analysis of a school. Carroll and Huo (1986) sample newspaper organizations to draw conclusions on the unit of analysis of a newspaper publishing industry.

Again, as Freeman (1978) points out this is not necessarily problematic, especially if the implications for the research of unit of analysis are understood by the researcher. But the research study methodologies showed no consideration for the effect of sub-optimal selection of unit of analysis.

2. Process Dimension

The process dimension unit of analysis is divided into elements of profit and non-profit organizations. The units of analysis in this dimension draw its data from samples that are of the same type. Most of the studies collected data from organizations and industries which are characterized as either profit or non-profit. In a majority of the studies in this dimension, non-profit units of analysis use data sources that are also non-profit; profit units of analysis use data sources that are also

profit. A few units of analysis though, sampled entities that were neither profit nor non-profit. For example, a school is a non-profit unit of analysis. To use a sample of teachers, principles and superintendents may lead to ambiguity as teachers, principals and superintendents cannot be classified as either profit or non-profit entities. This is not to say that individuals do not constitute a proper sample for non-profit organizations (Zucker, 1977) but the fact that individuals are a different level of analysis and applying their characteristics to non-profit organizations should be approached with caution.

The occurrences of ambiguity in the process dimension unit of analysis selection and definition is not as widespread as above in the structural dimension. In the structural dimension, the unit of analysis and sample source often are not at the same level just as in the examples given previously. Whereas in the process dimension, the problem of mismatching levels of analysis only arose when samples were taken at the individual level of analysis which cannot be defined as either profit or non-profit. This occurred only in 19 percent of the studies (Hirsch, 1975; Kimberly, 1981; Meyer, Scott and Deal, 1983). Again, this is not of concern if the researcher understands the implications of projecting findings from a sample onto a population when the sample and population are

different levels of analysis. The low occurrence rate of this mismatching may indicate that institutional theories because of its nature has an affinity for the process dimension unit of analysis.

3. Structural and Process Dimension

When the structural and process dimension unit of analysis are combined as in Table 3.2, conclusions can be drawn as to the focus of the theories. The research studies apparently were aimed to study organizations that are categorized as non-profit organizations. This realization is evidenced by the fact that two thirds of the studies across the process dimension are researching non-profit units of analysis. When the research was directed at profit organizations the focus was on the multi-organization level (i.e., industry).

D. VARIABLES

The variables are analyzed according to two frameworks. Dependent variables constitute the first framework and are separated between structural and process families as described in chapter three. The second framework is an analysis of frequency of dependent and independent variables.

1. Families of Dependent Variables

The structural variable, adoption and retention of innovative structures, was researched in three domains: local school districts (Rowan, 1982), lab experiment with

individuals (Zucker, 1977) and civil service reform (Tolbert and Zucker, 1983). Rowan defined adoption and retention of change when an administrative office with an appropriate job title was listed with the organization. Zucker, through empirical observations, measured the transmission of the change process by studying the uniformity of understandings among individuals. Whether or not a change was maintained was studied with and without direct control. Resistance to change was studied through personal influence factors. Tolbert and Zucker measured the variable by whether or not a legal requirement for the establishment of civil service organization was present in municipalities.

All three studies operationalized the variable differently, yet used appropriate measures. Meyer and Rowan (1977) argue that change within organizations becomes permanent when the aftermath of the change is rooted in social norms. Once a job title is listed as formally established or there is a legal requirement for change then the "myth" and "ceremony" of institutionalization (chapter two) guarantee the change process. Zucker's uniformity of understanding measure operationalizes change through the "taken-for-granted" (chapter two) aspect of theory. If members in an organization all share the same beliefs regarding change then the change is institutionalized and it becomes accepted.

Administration differentiation was examined in three domains: higher education (Tolbert, 1985), public school districts (Meyer, Scott and Strang, 1987) and social service organizations (Oliver, 1988). Tolbert measured administrative differentiation by the number of offices responsible for management of funding sources. Meyer, Scott and Strang measured administrative differentiation by the number of administrative positions and expenditures on administrative positions. Oliver measured administrative differentiation by the degree of internal specialization within the organization.

Administrative differentiation was operationalized by a measure of the resource dependency present in the organizations. Resource dependency occurred when the organizations relied on external entities for funding. In these non-profit domains resource dependency is a determinate of the number of administrative offices. The greater the resource dependency, the larger the administrative structure. The first two variables demonstrate a direct link between funding and administrative offices in an organization. The link is implied in Oliver's research. The specialization is a result of requirements established by funding authorities. These measures follow DiMaggio and Powell's (1983) framework of "isomorphism" (chapter two). The organizations are resource dependent, and this dependency is manifested by requirements of the funding source

for control and accountability of resources. Isomorphism dictates that in order to fulfill the requirements of the funding source an organization adopts administrative structures that give the appearance of rational behavior. There probably is no better way to appear rational for this purpose than to take the same structure as the funding source.

Meyer, Scott and Deal (1983), studied the homogeneity of structure of schools. This dependent variable was operationalized through perceptions by individuals of formal policies (norms) within the schools. The researchers "...were interested in the existence of policies, not in the extent to which they are implemented." (Meyer, Scott and Deal, 1983, p.51) Because of differences in the environment at various levels of the organization, perceptions were varied as to the existence of policies. According to Meyer, Scott and Deal (1983) the structure of the organization emerges from the perceptions of given policies (norms) especially when these policies are perceived as "rational and legitimate." In the non-profit organization, policy is not always clear therefore structure is not always clear. People tend to relate in a manner that is convenient to them as opposed to following prescribed structures that are unclear to them. Non-profit organization characteristics such as resource dependency and hard to define units of output contribute to loose

associations in these organizations (Euske and Euske, 1986). The characteristics are difficult to deal with using prescribed structure and therefore people rely on informal means.

The process family of dependent variables had operationalizations of dependent variables more commonly associated with technical-rational theories: profitability (Hirsch, 1975), the decision making process (Powell, 1988; Oliver, 1988), effectiveness (Kimberly, 1981) and performance (Carroll and Huo, 1986). Three of the variables were operationalized through contexts of the environment: decision making, effectiveness and performance. These variables operationalized the concept of buffering (chapter two). The variables buffer the organization's technology from evaluation by the environment. Profitability was also operationalized in the context of environment but differently by controlling the environment vice buffering the organization's inner core from the environment. The organizations being studied tried to protect their profitability by establishing trade associations in order to control the institutional environment. The members of organizations believed that trade associations would provide stability in the market and protect their profitability.

Two process dependent variables were centered around the effects of change on the organization: control

by the institutional environment of organization change and effects of change on performance and survival (Zucker, 1987b). When the institutional environment controlled the change, the organization was less likely to benefit from the change. This conclusion may seem obvious since the organization is not driving the change (i.e., unconnected legislation may be the driver) and therefore the change is not necessarily what the organization desires. The driver is a third party and may not necessarily have the best intentions for the organization.

The effects of normal institutional change on organizational performance and survival decreases the likelihood of failure. This is consistent with theory in that an organization by adopting institutional change gives the appearance of rational behavior thus enhancing its prospects for survival.

Two other variables addressed founding and death rates and growth rates (Carroll and Huo, 1986). These variables were measured by factors of politics. Political consideration is at the heart of institutional theories. These variables add an important dimension over technical-rational theories, which often ignore political influences from the environment.

2. Frequency of Variables

Fourteen dependent variables are dispersed over the studies. All of the dependent variables occur singularly in the studies expect for the four that are outlined in chapter three. Two of these variables occur in three studies while the other two variables occur in two studies. The studies did not concentrate on particular variables but rather covered a wide range. This dispersion justifies the argument presented by DiMaggio (1983) in chapter two regarding the lack of unity in institutional theories. The theories cover a wide range of dependent variables as indicated by their dispersion.

Frequency analysis of independent variables (Table 3.3) shows which causes are believed by the researchers to most often effect organizations in the context of institutional theories. Occurrences in themselves do not specify information regarding appropriately operationalized variables or whether the research tests the theory. In the absence of strong definitions of independent variables, frequency analysis provides patterns of independent variables. If throughout various independent studies of institutional theories, the same independent variables reoccur, a pattern of usage may indicate the appropriateness of certain independent variables in further research. In any case, these patterns may help to further refine the theories.

E. RELATIONSHIP BETWEEN UNIT OF ANALYSIS AND VARIABLES

1. Single Organization

Within the single organization unit of analysis the research is concentrated in terms of dependent variables within the structural family of variables. This focus of application within the structural family has the potential to be very helpful in understanding organizational structure. Of interest in this category is that 85 percent of the single organizations are also non-profit organizations. There is a connection between the structural dependent variables and single organizations that are also non-profit. This connection supports the theories that specify the relationship between an organization's structure and its functioning as a non-profit organization.

According to the theories, an organization with hard to measure units of output and input (Euske and Euske, 1986) such as a non-profit organization, will structure itself to conform to funding source requirements for rational and appropriate use of the funds. The funding source demands a mechanism to ensure funds are used appropriately, the organization responds by structuring itself in conformance with either funding source requirements or perceived funding source expectations of rational behavior. The best way to accomplish this in either case is to structure the organization in a similar fashion as

the funding source. This is the concept of isomorphism put forth by DiMaggio (1983) and discussed in chapter two.

Economic dependency as an independent variable (Table 3.3) did not appear in this relation between non-profit single organization and structural dependent variables. This conflicts with theory in terms of isomorphism and its component resource dependency. According to the discussion in the preceding paragraph economic dependency should predominate as an independent variable in connection with structural dependent variables. No single independent variable displayed dominance in connection with structural dependent variables. As discussed in chapter two, economic or resource dependency is the catalyst of non-profit organization's concern for own structure. The theoretical literature placed heavy emphasis on economic dependency in this regard but research seems to have ignored this connection.

2. Multi-Organization

At the multi-organization level, economic dependency is matched with the structural dependent variable administrative differentiation (Meyer, Scott and Strang 1987). This is congruent with theory as discussed in the previous section. The significance of this at the multi-organization level is not addressed by theory in terms of this unit of analysis. Economic dependency is also linked with the process dependent variables, decision making

process (Powell, 1988) and growth rates (Kamens and Lunde, 1988). The unit of analysis is non-profit organizations, which agrees with the theories. Economic dependency is addressed in the theories as a concern in the non-profit unit of analysis. The research finds the variable economic dependency occurring across the single and multi-organization level even though the distinction of this application is not addressed in the theories.

Three related dependent variables, founding and death rates and growth rates, provide valuable information in a macro-sense of multi-organizations. Though these variables are addressed in institutional theories in the context of organizational survival (DiMaggio and Powell, 1983), they could provide a basis for evaluating strategic planning. From the perspective of a market economy, these variables could provide direction in the multi-organization setting. Opportunities for entry and exit within an "industry" would be available as well as indications for strategic direction within the "industry."

3. Profit Organization

Within the profit unit of analysis, 80 percent of the units analyzed are multi-organization. These multi-organizations are profit industries. All dependent variables in this dimension are process variables. Profitability is the predominate dependent variable in this unit of analysis as are two closely associated variables,

performance and decision making. These three variables, obviously important in the analysis of organizations, do not have a direct connection to institutional theories. The researchers (Hirsch, 1975; Carroll and Huo, 1986; Powell, 1988) attempt to study the relationship of these variables to the institutional environment. Instead of the environment effecting structure (Meyer and Rowan, 1977; Dimaggio and Powell, 1983) the researchers using the former variables (i.e., profitability, performance and decision making) are looking at the effect environment has on these variables as they occur within the organization.

4. Non-Profit Organization

The non-profit unit of analysis revealed no significant distinctions for single and multi-organization units of analysis. There is a concentration of dependent variables in the structural family of variables, as well as process variables occurring in this dimension. As established previously the occurrence of structural variables in the non-profit dimension follows the theories.

Decision making process (Powell, 1988; Oliver, 1988), control by the institutional environment of organizational change, the effect of change on organizational change (Zucker, 1987b), growth rates (Kamens and Lunde, 1988) and goal multiplexity, formalization of policies and procedures (Oliver, 1988) are the occurring process variables. The process variables that occur, are not

strictly congruent with the theories, but provide for expansion of application of institutional theories to the critical realm of process variables. For example, all organizations no matter what the level of analysis (i.e., profit or non-profit) are concerned with the decision making process. Though this variable is not directly addressed in institutional theories in some way it does effect all aspects of an organization. To enhance Institutional theories it is necessary to address such obvious and important relationships.

5. Individual Level

The remaining individual unit of analysis (Zucker, 1977) focused on the applicability of institutional theories in the domain of the individual. An argument could be made that an individual is a level of organization. Otherwise, there is a problem of level of analysis when applying institutional theories of organization to the individual level. An aggregation of qualities of elements does not necessarily constitute qualities of the collective body (Pfeffer, 1982). Care needs to be taken in the extrapolation of this process. There are implications for the individual in an organization in regards to institutional theories, but institutional theories do not make claim to this notion.

V. DISCUSSION

The purpose of this chapter is to present concluding discussion of the research findings. The areas that will be discussed in this chapter are: research method, unit of analysis (to include the structural and process dimension) and the structural and process families of dependent variables. Also, recommendations for further research of institutional theories are offered.

A. RESEARCH METHOD

The studies were classified according to Kerlinger's (1973) profile of organization for effectively using *ex post facto* research. Of all the studies, 94 percent used an *ex post facto* method while only 67 percent of the studies actually fit the profile for *ex post facto* research (Table 5.1). Zucker (1977) was the only study that did not use *ex post facto* research. Therefore, 28 percent of the studies used *ex post facto* research in place of a possibly more appropriate research method. This is not to say that 28 percent of the studies used incorrect research methods. But what could be said, is that 28 percent of the units of analysis could be operationalized by selection of a research method whose characteristics can better isolate the phenomena of interest. For example, studies that address profit organizations could use an experimental

TABLE 5.1. STUDIES THAT USED *EX POST FACTO* RESEARCH

Fit the profile	Does not fit the profile
Meyer, Scott and Strang 1987	Hirsch(a,b)* 1975
Tolbert 1985	Tolbert 1988
Meyer, Scott and Deal 1983	Carroll and Huo 1986
Rowan 1982	Powell(a)* 1988
Kimberly 1981	
Zucker 1987b	
Powell(b)* 1988	
Kammens and Lunde 1988	
Tolbert and Zucker 1983	
Oliver 1988	

*Indicates which unit of analysis applies from Table 3.1.

research method as a more effective procedure. Experimental research relies on variables that can be identified, measured and manipulated. These characteristics can be easily found in the variables of profit organizations. For example, profitability in profit organizations is usually measured by return on investment (income divided by assets). Income and assets are easily measured through the accounting process, and easily controlled for purposes of experimentation by techniques such as "what if analysis." By matching the characteristics of the research method and the phenomena of interest more closely, excess noise would be eliminated from the data base.

B. UNIT OF ANALYSIS

The treatment of unit of analysis in the research studies is the most problematic aspect of the operationalization of institutional theories. Little evidence is present in the studies to show any regard by the researchers for the implication of unit of analysis as Freeman (1978) and Pfeffer (1982) suggest. Normally, the unit of analysis was not defined in the studies. In all cases where the unit of analysis was defined, the relationship to the sample was not specified. No justification was given for the selected sample. Again, this is not to say that a sample representin a level of analysis different from the unit of analysis is inappropriate. However the researchers did not demonstrate concern for such aspects.

This identified deficiency will hinder managers trying to apply institutional theories to their own organizations. The danger is that mangers will interpret the theories and apply them to incompatible levels of the organization. Without the realization of this deficiency, the manager may conclude that institutional theories have no applicability.

The development of the structural dimension as a level of analysis is interesting in that it is not addressed in the theories. The structural dimension helps to operationalize the theories so that the theories can be applied more handily in the study of organizations at different levels (i.e., individual, multi-organization and single

organization level). The structural dimension, in terms of level of analysis in the context of institutional theories, provides an additional dimension of study at various levels of the organization.

The process dimension is somewhat implied in the theories, though not explicitly stated. Though institutional theories do not directly address profit and non-profit organizations, the characterizations of the organizations in the theories imply this distinction and an affinity for non-profit organizations. For example, institutional theories are characterized as applying to organizations with difficult to measure units of output and input (Euske and Euske, 1986) which in turn characterizes non-profit organizations. The concept of buffering (Parsons, 1960; Meyer and Rowan, 1977) characterizes organizations with inner cores that are not technical in nature and therefore difficult to evaluate. Again, this is a characteristic of non-profit organizations and not at all representative of profit organizations.

Most theories of organization do not make a distinction as to whether the organization is profit or non-profit (Thompson, 1967; Scott, 1981; Pfeffer, 1982). Institutional theories though, provide a perspective for the non-profit manager in addition to applicability to the profit organization. Of course, characteristics of profit and non-profit organization are not mutually exclusive. Some

characteristics of organization are common to both (e.g., decision making process). The process dimension gives a manager, whether profit or non-profit, a broader selection of variables to chose from and does not exclude those that are common to both types of organization.

C. STRUCTURAL AND PROCESS FAMILIES OF DEPENDENT VARIABLES

The classification of dependent variables into families of structural and process variables provides the manager of an organization with different perspectives in which to view his environment. The manager can view the organization in the light of dependent variables that represent aspects of structure or in light of dependent variables that represent the various processes that are ongoing in an organization.

The structural dependent variables bring to light the reasons for change in an organization in the context of institutional factors. Change does not always occur for reasons of efficiency as in technical rational-theories, but can occur because of survival concerns. (Rowan, 1982; Tolbert and Zucker, 1983) In the non-profit organization survival depends on conforming to requirements of funding sources. (Meyer, Scott and Deal, 1983; Tolbert, 1985; Meyer, Scott and Strang, 1987) These requirements, as explained in chapter four, compel the organization to adapt its structure to conform to the requirements of the funding source which in turn gives the organization a quality of

rational behavior. The perception of rational behavior as displayed by the organization is what the funding source requires of the organization in order for the organization to receive funding. (Tolbert, 1985; Meyer, Scott and Strang, 1987)

Process dependent variables allow for application of institutional theories to profit as well as non-profit organizations (Hirsch, 1975; Carroll and Huo, 1986; Tolbert, 1988; Powell, 1988). As mentioned previously, profit and non-profit organizations share common elements (e.g., decision making process) and process dimension dependent variables serve as a bridge between the two types of organizations. This feature certainly enhances the theories' utility.

D. RECOMMENDATIONS FOR FURTHER RESEARCH

The transition of institutional theories to a state of application by the practitioner/manager is far from realized. Up to this point, most of the research in this field has been accomplished in the sociology disciplines. In order to make these theories a viable management tool, further research by those in the management disciplines must be undertaken. Suggestions for research objectives are as follows:

1) Definition and refinement of "unit of analysis" in the application of institutional theories to organizations.

2) Develop a clearer, more precise translation of variables from the theoretical state to the operational state.

3) Development of a model for application of institutional theories in everyday situations.

The unsolidified state of institutional theories is currently a hindrance to applications of the theories by practicing managers. The usefulness of institutional theories to the practicing manager can best be realized by a systematic development of empirical findings which identify specific applications in operating organizations. The findings need to refined into tools that the practicing manager can use in everyday management situations.

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